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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,928	10/12/2000	Arihiro Takeda	2803.64683	7460
7590	12/16/2003		EXAMINER	
Patrick G. Burns Greer, Burns & Crain, Ltd. 300 S WACKER DRIVE 25TH FLOOR Chicago, IL 60606			NGUYEN, DUNG T	
			ART UNIT	PAPER NUMBER
			2871	
			DATE MAILED: 12/16/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/689,928	TAKEDA ET AL.
	Examiner Dung Nguyen	Art Unit 2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 26 September 2003.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 150, 151, 154-166 and 168-170 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 150, 151, 154-163 and 168-170 is/are rejected.
- 7) Claim(s) 164-166 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>27</u> .	6) <input type="checkbox"/> Other:

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/26/2003 has been entered.
2. Applicants' amendment dated 09/26/2003 has been received and entered.

### *Specification*

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 168 recite a negative limitation of "said domain regulating means is a protrusion-like structure and is provided at areas ...are not provided" (emphasis added) which was not described in the original specification. Therefore, the amendment filed 09/26/2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material "said domain regulating means is a protrusion-like structure and is provided at areas ...are not provided" which is not supported by the original disclosure.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 168-170 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 168, it has been contained the material which is not supported by the original disclosure as stated above. Such amendment does not have basis in the original disclosure and fails to comply with the written description requirement. Therefore, the added such limitation constitutes a new matter.

Applicant is required to cancel the new matter in the reply to this Office action or it must be re-filed as a continuation-in-part of the parent application with a new oath/declaration.

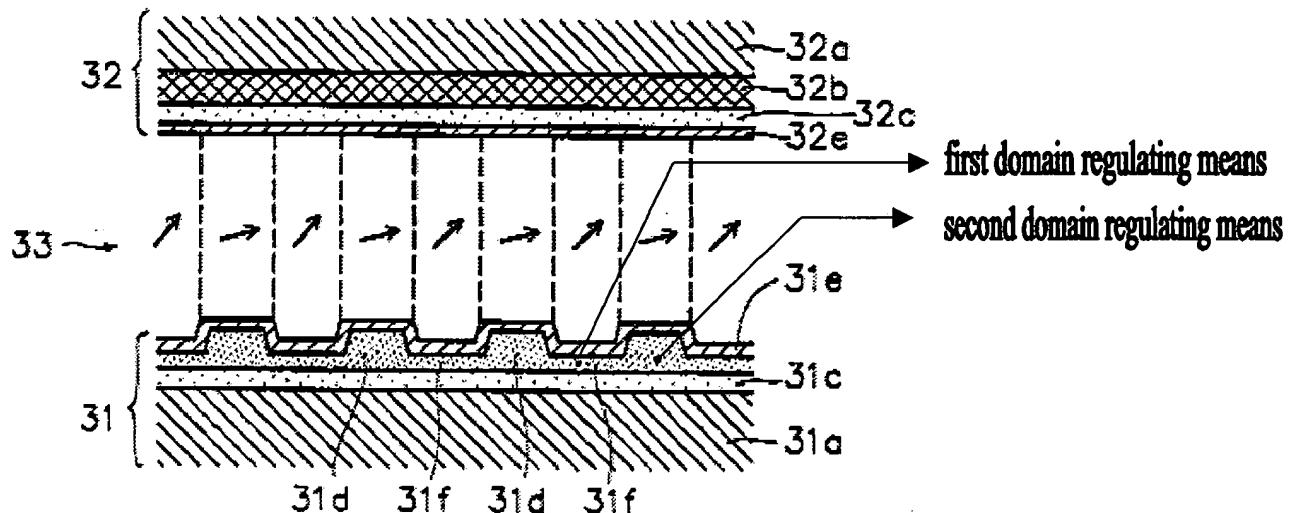
***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 150-151, 154-163, 168-170 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Koma, US Patent No. 5,608,556, in view of Hirata et al., US Patent No. 5953093, as stated in the final office action.

Regarding claims 150-151 and 154-162, although those claims are now amended, such amendment “first and second domain regulating means being provided under an alignment layer” is not sufficient to overcome its rejection in the final office action since the same is true of the Hirata et al. domain regulating means. In particular, the first and second domain regulating means (31d, 31f) is formed under the alignment layer (31e) (see figure 14, reproduced below). In addition, Applicants contend that Hirata fail to show a first domain regulating means substantially surrounding a second domain regulating means (amendment, pages 11-13). The



Examiner respectfully disagrees with the applicant's viewpoint. Hirata et al. figures 12-14, as shown in the previous office action, do show the first domain regulating means (e.g., 31f) and the second domain regulating means (e.g., 31d), wherein the first domain regulating means substantially surrounding the second domain regulating means (see figure 14, reproduced above). It should also be noted that the first and second domain regulating means having a function of regulating azimuths of orientations of liquid crystal molecules. Therefore, for broadest reasonable interpretation, domain regulating means would comprising protrusions (or slits) with

an alignment layer for aligning liquid crystal molecules. In other words, the Applicants domain regulating means and the Koma/Hirata et al. domain regulating means would be the same as well.

Regarding claim 163, Applicants content that neither Koma nor Hirata shows no protrusions (or even slits) are formed on the same substrate as the TFTs (amendment, page 14). The Examiner agrees that Koma shows no protrusions; however, Koma does show slits (33b) that are formed on the same TFT substrate and such slits are formed of a member that is the same as at least one member constituting the TFTs (e.g., pixel electrode 17)(see figure 8). Therefore, the combination of Koma and Hirata et al. would have been obvious to one skilled in the art to employ a protrusion structure (instead of a slit structure) and such structure is formed of a member that is the same as at least one member constituting the TFTs as stated in the previous office action. In other words, the limitation of claim 163 met.

Regarding claims 168-170, it should be noted that the negative limitation of “said domain regulating means is a protrusion-like structure and is provided at areas ...are not provided” is subjected to a new matter because it have not been disclosed in the original specification as noted above. Therefore, such feature have not been examined or considered at this time.

#### *Allowable Subject Matter*

8. Claims 164-166 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

9. Applicant's arguments filed 09/26/2003 have been fully considered but they are not persuasive as state above

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 703-305-0423. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

DN  
12/12/2003



*Dung Nguyen*  
*Patent Examiner*  
*Art Unit 2871*